

Remarks

Claims 31-34, 36 and 50-66 were pending in the subject application. By this Amendment claims 31-34, 36, 50-62, 65 and 66 have been amended and claims 63 and 64 have been cancelled. Thus, claims 31-34, 36, 50-62, 65 and 66 are now presented for consideration by the Examiner.

Support for these amendments can be found throughout the subject specification. The amendments to the claims have been made in an effort to lend greater clarity to the claimed subject matter and to expedite prosecution. These amendments should not be taken to indicate the applicant's agreement with, or acquiescence to, the rejections of record. Favorable consideration of the claims now presented, in view of the remarks and amendments set forth herein, is earnestly solicited.

The applicant acknowledges his previous election of the Group I claims and appreciates the Examiner's inclusion of SEQ ID NOS. 2 and 16-27 in the subject matter that has been examined. Claim 66 has been amended to delete reference to non-elected sequences.

The subject specification has been objected to due to informalities. By this Amendment, the applicant has amended the last paragraph on page 3 to delete the sentence fragment. Please note that a similar discussion appears at page 8 of the specification.

Claims 31-34, 36 and 50-61 have been rejected under 35 U.S.C. § 101. The claims have been amended herein in accordance with the Examiner's helpful suggestion. Reconsideration and withdrawal of this rejection is, therefore, respectfully requested.

Claims 62-66 have been rejected under 35 U.S.C. § 112, first paragraph. The applicant respectfully traverses this ground for rejection because a person skilled in the art could readily, and without undue experimentation, practice the full scope of the claimed invention. Please note that the claims have been amended herein to more specifically recite that the immune system is being upregulated in a patient with cancer, HIV, or a bacterial invention.

The claims have been amended consistent with the Examiner's statement at page 3, Section 6 of the outstanding Office Action wherein it is stated that the specification is enabling for "a method of upregulating the immune system in a patient with an identified disease (e.g., cancer, HIV, or bacteria infection) in need of such regulation, comprising administering a Hepreceptor peptide having a defined amino acid sequence". Accordingly, in view of the amendment to claim 62 (and the

cancellation of claims 63 and 64), the applicant respectfully requests reconsideration and withdrawal of this rejection under 35 U.S.C. §112, first paragraph.

Claims 31-33 and 62-66 have been rejected under 35 U.S.C. § 112, second paragraph. The applicant respectfully requests reconsideration and withdrawal of this rejection in view of the amendments set forth herein.

With regard to claims 31-33 and 64-65, please note that the claims have been amended to delete reference to the terms "a portion" or "part" and to lend greater clarity to the particular peptides that are now claimed. With regarding to claims 62-66, the claims have now been amended to specifically recite that the administration of the peptides of the subject invention results in upregulation of the immune system. Accordingly, the applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. §112, second paragraph.

Claims 31-34, 50-53, 55, 57, 59 and 60 have been rejected under 35 U.S.C. §102(b) as being anticipated by Gould *et al.* (*The EMBO Journal* 8, 4133-4141 (1989)). The applicant respectfully traverses this ground for rejection because the cited reference does not disclose or suggest the particular peptides claimed by the current applicant. Gould *et al.* only describe the sequence of the entire ezrin protein. Thus, although Gould *et al.* disclose a protein sequence derived from the nucleotide sequence of the cDNA for human ezrin, Gould *et al.* do not teach the particular advantageous peptides of the subject invention.

It is basic premise of patent law that, in order to anticipate, a single prior art reference must disclose within its four corners, each and every element of the claimed invention. In *Lindemann v. American Hoist and Derrick Co.*, 221 USPQ 481 (Fed. Cir. 1984), the court stated:

Anticipation requires the presence in a single prior art reference, disclosure of each and every element of the claimed invention, arranged as in the claim. *Connell v. Sears Roebuck and Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983); *SSIH Equip. S.A. v. USITC*, 718 F.2d 365, 216 USPQ 678 (Fed. Cir. 1983). In deciding the issue of anticipation, the [examiner] must identify the elements of the claims, determine their meaning in light of the specification and prosecution history, and identify corresponding elements disclosed in the allegedly anticipating reference. *SSIH, supra; Kalman v. Kimberly-Clarke*, 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983)] (emphasis added). 221 USPQ at 485.

It is further noted that the courts have clearly established that rejections under 35 USC §102 are appropriate only in those instances where a single prior art reference has placed into the public domain the very invention which is claimed. In *Dewey & Almy Chem. Co. v. Mimex Co.*, Judge Learned Hand wrote:

No doctrine of the patent law is better established than that a prior patent . . . to be an anticipation must bear within its four corners adequate directions for the practice [of the subsequent invention] . . . if the earlier disclosure offers no more than a starting point . . . if it does not inform the art without more how to practice the new invention, it has not correspondingly enriched the store of common knowledge, and it is not an anticipation. 124 F.2d 986, 990; 52 USPQ 138 (2nd Cir. 1942).

The particular peptides of the subject invention, which are identical to SEQ ID NO. 29 (or at least 5 consecutive amino acids thereof) are not taught, or even suggested, by Gould *et al.* Therefore, in accordance with the legal authority cited above, Gould *et al.* cannot be said to anticipate the current claims. Accordingly, the applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. §102(b) based on Gould *et al.*

Claims 31-34, and 50 have been rejected under 35 U.S.C. §102(b) as being anticipated by Holms (US Patent 5,773,573). The applicant respectfully traverses this ground for rejection because the earlier Holmes patent does not disclose or suggest the peptides claimed in the current application. In this regard, please note that, in amending the claims to clarify their scope, Dr. Holms has clarified that the claims in his current application do not encompass the peptides in his previous patent. Dr. Holms has found that the peptides described in the current application are particularly advantageous and were in no way taught or suggested by his previous work. Because the Holms '573 patent does not disclose the peptides of the current claims, the applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. §102(b) based on the Holms '573 patent.

Claims 31-34, 36 and 50 have been rejected under 35 U.S.C. §102(e) as being anticipated by Arpin *et al.* (U.S. Patent 6,399,584). The applicant respectfully traverses this ground for rejection because Arpin *et al.* do not disclose or suggest the applicant's specific and advantageous peptides. Arpin *et al.* focus on amino acid sequences that have been mutated, rather than peptides having sequences identical to a portion of the natural ezrin molecule. Therefore, the Arpin *et al.* reference does not disclose (or even suggest) within its four corners the particular peptides claimed by the

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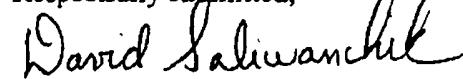
current applicant. Accordingly, the applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. §102(e) based on Arpin *et al.*

In view of the foregoing remarks and the amendments above, the applicants believe that the currently pending claims are in condition for allowance, and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees under 37 CFR §§1.16 or 1.17 as required by this paper to Deposit Account No. 19-0065.

The applicant also invites the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



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Attachments: Sequence Listing on papers and computer readable format (disk); and
Submission of Substitute Sequence listing under 37 CFR §1.821

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